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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,992

02/21/2006

Jurgen Meyer

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EXAMINER

BROWN, COURTNEY A

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

10/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,992

Applicant(s)

MEYER ET AL.

Examiner

COURTNEY BROWN

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)
Paper No(s)/Mail Date 2/21/06 and 6/27/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claims 1-11 are pending and are being examined for patentability.

Priority

Priority to EPO Application 03018678.7 filed on August 22, 2003 is acknowledged.

Information Disclosure Statement

The Information Disclosure Statements (IDS) submitted on February 21, 2006 and June 27, 2006 have been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchnick et al. (US Patent 5,486,631) in view of Ettlinger et al. (US Patent 6,022,404) and further in view of Anderson et al. (US Patent 6,521,668 B2).

Applicant's Invention

Applicant claims surface-modified zinc oxides, characterized in that they have the following physico-chemical characteristic data: BET surface areas: $18 \pm 5 \text{ m}^2 / \text{g}$, C content: 0.5 to 1.0 wt. %

Determination of the scope and the content of the prior art (MPEP 2141.01)

Mitchnick et al. teach a silicone composition that is a reactive alkoxy silicone which is applied to the zinc oxide and subsequently heated from 40 to 100 degrees

Celsius for between 1 and 10 hours (abstract). Mitchnick teach that the aforementioned zinc oxide is used in a variety of applications and formulations including personal care sun screen applications (column 8, lines 59-end). Mitchnick et al. teach that the aforementioned formulations may contain other ingredients including water, inorganic pigments, organic pigments, emulsifiers, oil soluble sun screens, water soluble sun screens, alpha hydroxy acids, dispersants, oil soluble vitamins, water soluble vitamins, waxes and silicone (column 8, lines 59-end).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Mitchnick et al. is that the instant invention requires that the zinc oxides are modified with organosilanes as opposed to an alkoxy silicone. For this reason, the teaching of Ettlinger et al. is joined. Ettlinger et al. teach surface modifying mixed oxides using the organosilane compounds from groups a-m as disclosed in claims 2, 4, and 6 of the instant application. Ettlinger et al. also teach process for preparation of the surface-modified mixed oxides wherein the mixed oxides are sprayed under intensive mixing optionally with water at first and then with the surface-modifying reagent or the mixture of several surface-modifying reagents, mixed again 15 to 30 minutes and subsequently tempered at a temperature of 100 to 400 degrees Celsius for a period of 1 to 6 hours. Additionally, Ettlinger et al. also teach a second process for preparation of the surface-modified mixed oxides wherein the mixed oxides are heated together with slight

amounts of water vapor and optionally together with an inert gas in a continuous process in an upright treatment space designed as a tubular oven to temperatures of 200 to 800 degrees Celsius, preferably 400 to 600 degrees Celsius (column 4, lines 15-48). Additionally, Mitchnick et al. teach the use of said surface- modified mixed oxides as a UV blocker in cosmetics (column 4, lines 48-57).

Another difference between the invention of the instant application and that of Mitchnick et al. is that the instant invention requires BET surface areas: $18 \pm 5 \text{ m}^2/\text{g}$, C content: 0.5 to 1.0 wt.%. For this reason, the teaching of Ettlinger et al. is again joined. Ettlinger et al. teach surface-modified oxide particles with BET surface areas: $18 \pm 5 \text{ m}^2/\text{g}$, C content: 0.5 to 1.0 wt.% (see column 7, table 3).

A final difference between the invention of the instant application and that of Mitchnick et al. is that the instant invention requires a sunscreen preparation comprising the claimed surface modified zinc oxide and a carrier such as ethylhexylmethoxycinnamate as opposed to being silent. For this reason, the teaching of Anderson et al. is joined. Anderson et al. teach the use of ethylhexylmethoxycinnamate in a sunscreen preparation (see claims 1 and 8 of reference).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a topical sunscreen composition comprising surface-modified zinc oxides. Wolf et al. teach that modern micronized forms of metal oxides such as zinc oxide and titanium dioxide mobilize electrons within their atomic structure while absorbing UV radiation and in their coated form they are stable, non-toxic, and safe and they act as highly efficient UV attenuators (see abstract). One would have been motivated to make this combination in order to receive the expected benefit of having a sunscreen composition that contains particles that reduce the effect of UV rays. "It would be prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a resultant composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven, 205 USPQ 1069 (C.C.P.A. 1980).

Conclusion

None of the claims are allowed.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
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/Mina Haghighatian/
Primary Examiner, Art Unit 1616